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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/143,318	08/28/1998	TAKASHI YAMANAKA	S004-3484	3378

7590 08/02/2005

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EXAMINER

BUDD, MARK OSBORNE

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 08/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/143,318

Applicant(s)

YAMANAKA ET AL.

Examiner

Mark Budd

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10 and 12-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 is/are allowed.
- 6) ☒ Claim(s) 1-8, 10 and 13-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

„ The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1-4,7,8,10,13-17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazawa or the prior art in view of Sumihara. As noted in applicants specification and the remarks contained in the amendment June 17, 2005, the known prior art constitutes an ultrasonic motor having a power supply and a movable member driven by an ultrasonic motor being mounted to a conductive member through which is ply current is passed in the power supply to the electrical device motor comprising a driving circuit a power source appease electric element these electric element and the driving circuit cooperating to form a self oscillation circuit and oscillating member in contact with appease electric element a moving body contacting the oscillating member and a pressing mechanism for urging the moving body against the oscillating number where in the ultrasonic motor is constructed such that if the oscillating member, the pressing mechanism and the moving body were formed of conductive materials a current path would be established between the conductive member on which the ultrasonic motor is mounted and an electrode of the peace electric element. Miyazawa figures 1 and 44lines 28-44;column 12, lines 36 -- 46 and column 18 line 54 -- column 20 line 68. Figure 1 and columns 10 and 12 teach that the electrical circuit of the ultrasonic motor can be of the self oscillating kind using feedback from the these electric element to sustain vibrations. In figure 44 teachers a motor

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construction comprising an oscillating member 2-27, a conductive support element 4-27, a piezoelectric element 3-27, a moving body 1-27, and a pressing mechanism 9-27.

Both the prior art and Miyazawa require **additional insulation between the conductive member and the ultrasonic motor**. Thus in the hypothetical scenario set up by the claim these references hypothetically meet the language of the claim except for the provision of one of the oscillating member the pressing mechanism or the moving body being formed of a nonconductive material. Sumihara (see abstract) teaches making at least the movable member out of fiber reinforced resin material so that the moving body can be lighter in weight and easy to manufacture as well as to provide more uniform contact and therefore less wear on the rotor/stator or interface. The examiner believes that since the carbon fiber content is only 30% by weight, and since the reference is directed to a specific improved carbon fiber structure and the carbon fiber content is chosen for the physical attributes (see for example problem 6 lines 2-17) and no mention is made of the composites electrical conductivity, the reference provides a prima facie case for the composite nonconductive. At best, the material may be a semi conductor. Thus, for at least these reasons it would have been obvious to one of ordinary skill in the art to construct to the moving member of either the admitted prior art or Miyazawa out of fiber reinforced resin as taught by Sumihara.

5, 6

Claims ~~5, 6~~ and 18-20 are rejected under 35 USC 103 (a) as being unpatentable over Miyazawa or the prior art in view of Sumihara as applied to claim 1 above, and further in view of Sawayama. These claims add that a wear resistant surface is

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provided on the state or surface. Sawayama teaches that either the rotor or the state can have an aluminum oxide surface layer to prevent unwanted wear (column 3 lines 50 – 58, table 1, table 2 and column 7, lines 49 – 54). Thus, for at least this reason it would have been obvious to want skill in the art to provide a wear layer of, for example, alumina to either the prior art or Miyazawa.

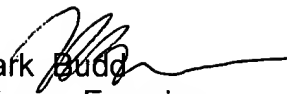
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Budd whose telephone number is 571 -- 272 -- 2019 the examiner can normally be reached on Monday through Thursday 6 a.m. -- 4 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg, can be reached on 5712722044. The fax phone number for the organization where this application or proceeding is assigned is 5712738300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Mark Budd
Primary Examiner
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